# THE NEED FOR REFORM OF NATIONAL INCOME STATISTICS

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There is no doubt that the body of economic indicators known as National Income Statistics has been a fantastic success. From being a somewhat erudite and even rather secondary interest of the National Bureau for Economic Research in the 1920's, its concepts have become standard categories not only of economic argument but also of political discourse. It is hard to believe that magic letters GNP were virtually unknown before 1930. However, one of my favorite anti-proverbs is that nothing fails like success, and the very success of National Income Statistics perhaps has induced a certain complacency among economists, who sit a little too secure in the high prestige of which National Income Statistics have been a considerable part of the purchase price.

This complacency is now being challenged from a number of sources. The ecologists and conservationists have been challenging us quite rightly because the categories of national income accounting do not usually take account of depreciation of the environment and the production of "bads." The worship of the Gross National Product has been attacked as a source of pollution, environmental degradation, and even of future environmental catastrophe. The Gross National Product can be increased by destroying irreplacable natural resources, and a good deal of the activity which it represents may consist of activity necessary to overcome the bads which are produced as a by-product of goods which are otherwise counted in the Gross National Product. We can perhaps defend the Gross National Product on the grounds that it is intended only as a measure of economic activity and says nothing about what that activity is for. This however is not quite adequate as an answer, because the GNP purports to measure the product of economic activity, not merely the activity itself. Hence, if it does not include the production of bads as negative items, it is seriously defective, simply because it is too gross. The failure to include bads, indeed, is a technical defect quite similar to the problem of avoiding double counting in the production of goods, a problem which was worked out in the very early days.

While the theoretical point is easy to make, its practical application is quite difficult, mainly because of severe difficulties which we encounter in the evaluation of bads. In order to get a figure for the GNP we have to add up an enormous heterogeneous list of items of goods, weighting each by some shadow price or valuation coefficient. We would have to do the same thing for the negative commodities, which should appear as negative items in the addition. The price system, however, does not easily create negative prices for negative commodities, so that it is often hard to tell what these negative prices ought to be. We can visualize this by imagining that we go to a complete system of effluent taxes in which everybody who produces a bad is taxed accordingly. The controversies which would arise over the simple word "accordingly" can well be imagined. The difficulty is that there are very poor markets for bads, mainly because we do not cherish them and exchange them, but rather try to push them off onto somebody else without him noticing it.

We may try to wriggle out of this bind by saying that what we are really looking for is a <u>net</u> national product. Even this, however, is not too satisfactory. The Net National Product in the standard accounts is largely an accounting convention, which is largely a function of the accounting habits of last year modified slightly by the impact of the tax system. The Capital Consumption Allowance which is subtracted from the GNP to produce the NNP is about as much an exercise of the fertile human imagination as any statistic can be. If we want to satisfy the ecologists and conservationsists, we should certainly add depreciation of the environment to this Capital Consumption Allowance to get a true NNP, although, unless this were also registered in private accounts and in private net worths, this would cause trouble when it came to evaluate the accounts on the income side. Degredation of the environment, unfortunately, frequently turns up as somebody's income, whereas if it were accounted properly it would appear as a deduction from somebody's income.

Exhaustion of resources should also be deducted from GNP to get a true GNP. When we ask ourselves how much to deduct, however, this seems like an even more difficult problem than the problem of evaluating bads. Natural resources are a function of human knowledge. Because of the spectacular rise in the "quantity of science," as Adam Smith calls it, we have probably been increasing natural resources faster than we have been using them up in the last two hundred years. But whether we can continue to do this is a serious question. We may be reaching the point of diminishing returns in the application of increased knowledge to the discovery of new resources. This, however, is a matter for the future which is extremely difficult to estimate now. If, for instance, we solve the problem of fusion power in the next fifty years, we may not have to worry very much about the exhaustion of oil, coal, and gas. If we do not solve it, we may have to worry a great deal. Who is to say, therefore, whether we should be deducting from the Gross National Product all the oil, coal, and gas that we use up, or whether we should be adding the capitalized value of the unknown future knowledge that we are going to have in fifty years? These are problems which can daunt the most skilled account of any kind and we can hardly blame national income accountants for simply pretending that they are not there.

Another problem of "netting" involves the evaluation of public goods. We could take almost any view here between two extremes. One of these would be to assume that public goods, that is, the government sector of the economy, represents simply something that is extorted by superior force from an unwilling citizenry and adds nothing whatever to their welfare. All taxes then are a simple deduction from real income. There are indeed some kleptocracies which may not fall altogether short of this model. At the other extreme, we have the exchange theory of public finance which supposes that people get something for their taxes equivalent to what they pay. Under these circumstances, the public sector of the economy is simply added to the private sector as individual welfare. The truth certainly lies somewhere between these two extremes, but where it is not easy to say. Even on the exchange theory, it is clear that public goods are much more like Christmas presents than they are like purchases, that is, they involve reciprocity rather than exchange, and just as one seldom gets what one wants for Christmas, one seldom gets what one wants from taxes, so that obviously in this sense the public sector has to be deflated in order to get a welfare index, but by how much it has to be deflated is almost anybody's guess. These problems revolving around the relation of National Income Accounts to welfare, either public or private, have been dealt with with great expertise by A. W. Sametz[1] and there is no need to beat this well-beaten bush much further. One or two other complaints, however, are not so often heard and as long as this is a complaining session we might as well try to get all the complaints out in the open.

One important set of complaints relates to the possible use or lack of use of National Income Statistics for the understanding of the problems of distribution in society. The standard National Income Accounts do have a breakdown of national income into distributional components such as Wages and Salaries, Business and Professional Income, Farm Income, Rental Income of Persons and Corporate Profits. How this fantastic hodge podge ever got into the national accounts is something which would be well worth a Ph.D. thesis. In the first place, the national income concept itself is an absurdity. It is surely one of the least defensible of all the aggregates. It is net of indirect taxes and gross of direct taxes, and there really seems to be no case for it at all, except perhaps on the assumption that only direct taxes measure the real value of the public economy and that indirect taxes represent that part of the public economy which is sheer waste. I doubt, however, if this theory was behind the construction of the accounts in the first place.

We start off, therefore, by distributing a quantity which is absurd to distribute in the first place, and we then proceed to distribute it in the oddest way imaginable. Farm Income, for instance, should surely belong to distribution by the industrial sector of the economy, something which, incidentally, is quite hard to get in any very satisfactory form. Then we have this preposterous aggregate called "Business and Professional" which includes presumably the income of doctors, lawyers, and unincorporated business. I have not been able to get a breakdown of this into business and professional, and one gets an uneasy feeling sometimes that these numbers are simply made up by a little man with a green eyeshade in the attics of the Department of Commerce. It is very peculiar, for instance, that this segment of national income has been declining, relatively, in the last forty years, whereas one would surely have thought that we have been witnessing a considerable expansion of the professions. Another very odd segment is "Rental Income of Persons," which again simply reflects a certain lack of incorporation in the real estate market with, I suppose, a certain amount of literary income. Corporate Profits here are gross of direct taxes and hence are probably overestimated. It would be hard to imagine, indeed, a more preposterous breakdown of a more preposterous total.

What then do we want? In the first place, we want distributional breakdowns of a number of different totals. For some purposes, the distribution of the Gross National Product itself would be quite interesting--for instance, by industries, by regions, and by various segments of the labor force, such as union versus non-union, corporate versus non-corporate, and so on. For other purposes, a breakdown of the Net National Product or something rather like it--perhaps it might be called the "gross national income," that is, gross income before taxes of all kinds. For other purposes, a breakdown of gross private <u>disposable</u> income, which would roughly be equal to the Gross National Income minus the total government sector, would also be of great interest. There are one or two rather tricky technical problems here of minor items such as the statistical discrepancy, certain items of income which are hard to allocate to individuals and the total government surplus or deficit, which are a little too technical to go into here. However, they are all fairly small items in normal times.

For both of these aggregates it would be extremely interesting to be able to break them down into labor income and non-labor income, which we cannot do in the present accounts, and it would be useful to be able to divide non-labor income into interest, profit, and rent in the good old classical style. These categories, unfortunately, are not as simple as they look and some compromises would have to be made, but it would certainly not be difficult to achieve something more significant than the present breakdowns. On the labor income side, it would be extremely nice to have a breakdown, even if somewhat arbitrary, into, say, unskilled, semi-skilled and highly professional, or something of this sort, which again we do not have now. It surely ought to be easy to answer from National Income Statistics questions such as "Is the economy getting more and more corporatized?" or "Are the service industries really increasing?" or "Is distribution going more towards labor or towards capital?" The plain fact is we simply cannot answer any of these important questions from the information as it is now presented.

Other distributions of national income would also be of enormous interest, but would be harder to get. We have certain distributions by race, although the aggregates here can be extremely misleading, as they are likely to hide certain poverty sectors within all the different racial groups. All blacks are certainly not poor and all whites are not rich. Breakdowns of income by religious preference would be of enormous interest, but very difficult to obtain. A breakdown by years of education would also be of great interest. The ideal here, of course, would be a system of computerized information from individuals which would enable us to get any kind of breakdown that we wanted, but this perhaps is too much to expect, and also raises all the specters of the national data bank, in terms of privacy, manipulation and so on.

Another very fundamental complaint against the national accounts is that they are extremely deficient on the side of capital accounting. There is no annual accounting of the national capital and its distribution. And yet, as I have been arguing, apparently without anybody listening to me for years, when it comes to developing an index of human welfare, capital accounts are much more important than income accounts. Welfare is a condition or state, that is, a stock rather than a flow, although it is not unrelated to certain flow elements. With the recent interest in the environmental deterioration the notion of welfare as a stock variable has suddenly become very fashionable. Yet National Income Accounts pay no attention to this at all. It is very difficult to find out from national accounts anything about the distribution of equity in the total capital stock of the society. It is equally difficult to find out much about the significance of the financial variables. What is the real significance, for instance, from the point of view of the distribution either of capital or income, of an increase in debt, both public and private, or of the significance of a change in the rate of interest? The fact that we cannot tell the distributional impact of almost any act of public policy, either in the distribution of capital or in the distribution of income, is one of the gravest defects in our economic information system. I am not suggesting the national accounts are necessarily the answer to this problem, but they are certainly part of the answer.

One of the great difficulties in interpreting the national accounts as a consumer, that is, as an outsider, is that, in spite of the publications on the subject, one does not really know how these things are actually put together in the shop. Anyone who has had any experience at all with the production of statistics by public bodies knows how much finagling, estimation, compromise, and argumentation has to go on inside the establishment before the beautiful tables appear in print. Any statistics-producing enterprise develops in the course of time a subculture of its own, along with a good deal of conventional wisdom and what we might call "private learning from experience," which is seldom subject to any outside test, and very rarely subjected to any formal outside valuation. A thorough, outside valuation of these "statistical subcultures" is something that should surely be done at least once every generation.

May I raise the question, therefore, as to whether the time is not ripe for a substantial reexamination of the whole system of aggregate statistics? I do not intend in any way to deprecate the magnificent work which has been done in the last forty years. Indeed, if one were to apply the overworked term "revolutionary" to any social change of this century, it is surely the development of National Income Statistics and the related improvements in the whole apparatus of social indicators. This has probably produced a larger change in social policy than any other single change in the institutional structure we can name, and the influence on the whole has been markedly beneficial. I have often pointed to the contrast between the twenty years after the First World War and the twenty years after the Second as an example of a fantastic transformation in the economic life of the world, a considerable part of which is a result of the change in political and social images which has come about through the use of National Income Statistics, coupled with the development of a macro-economic theoretical system which fitted in with the cumulation of statistical information. The interest which has developed in recent years in the extension of the system of aggregative indicators from National Income Statistics in the field of social indicators[2] is suggestive both of the tremendous impact which National Income Statistics have had and also of a certain sense of inadequacy in regard to them. The corollary of the antiproverb that I quoted at the beginning--that nothing fails like success--is that we only learn from failure, which is why it is so important to identify the right failures and to learn the right things from them. I suggest, therefore, that the time has come when a major research inquiry, not only into National Income Statistics, but also into social indicators in general, is clearly desirable. How this should be financed and organized is of course a question. It should clearly be in some sense independent enough of government to be capable of making sharp criticisms where these are required. On the other hand, it has to be close to government, which is the major provider of the statistical enterprise, and to have the confidence of those who are presently engaged in the business of producing statistics. Perhaps the natural body to sponsor such an enterprise would be the National Academy of Sciences, were it not for the fact that the relations of the National Academy with the social sciences are so marginal and unsatisfactory. Whatever the machinery, however, the need is very clear. Perhaps the preliminary work might be done by a joint committee of the American Economic Association and the American Statistical Association, though this might not have the essential entrée into government that the enterprise would really require. Whatever the machinery, it is important that the enterprise should be well financed and taken very seriously and that it should involve the participation of large numbers of consumers of statistics. It goes without saying that it should be an interdisciplinary enterprise, that it should involve all the social sciences, and it should probably have an element of collective bargaining in it between the users and the producers of statistics, so that it might almost be conceived as a semi-permanent institution after the initial work has been done.

## REFERENCES


(1) Sametz, A. W., "Production of Goods and Services: The Measurement of Economic Growth," in Indicators of Social Change, edited by E. B. Sheldon and W. Moore. New York: Russell Sage Foundation, 1968.

(2) Toward A Social Report. Washington, D.C.: U.S. Department of Health, Education and Welfare.